Actions Taken Since Permit Issuance

Rhonda B. Thompson, P.E.

Division Director

SC DHEC – Bureau of Air Quality



PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

Actions Taken By DHEC

- Reviewed letters of concern
- Reviewed permit conditions
- Requested additional information from USC
- Performed new modeling

Major Issues Raised

- Stack test data used to set permit limits
- Original modeling performed
- PM_{2.5} attainment status

Required Emissions Testing

- Testing required within 180 days after startup
 - maximum expected production rate
 - PM (total), PM₁₀, SO₂, CO, NOx, & VOC
- Site-Specific Test Protocol required
 - test methods, pollutant speciation, etc.
- What if emissions are higher than permitted limits?
 - redo modeling, control device installation
- Continuous Opacity Monitor (COM)

New Modeling Tool

- Used AERMOD model:
 - Latest EPA-approved air dispersion model
 - Not required to be used until after 12/08/2006
 - Uses more realistic calculations
 - More accurately predicts pollutant impacts

Revised Modeling

- More accurate GIS coordinates of campus buildings and boiler stacks used
- Placed public receptors throughout campus to address public access
- Increased biomass stack height to improve dispersion
 - Meets Good Engineering Practice (GEP) stack height
- New modeling shows compliance with all standards

PM_{2.5} Modeling Difficulties

- Currently no EPA guidelines available for permit application modeling
 - Other models available not designed to predict impacts from sources < 50 km away
- DHEC plans to install a continuous PM monitor on campus
 - Give public real-time data

Commitments from USC

- Will begin using low sulfur fuel oil in existing boilers
- Taking one boiler out of service
- Increase stack height of biomass unit
- Install control device after stack test if needed
- Pursuing other voluntary emission reduction measures - mobiles sources

Questions